

## 8.10 Waste Reduction Methods

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

Total: 10 marks

**KEY WORDS** composting 堆肥 • reduce, reuse, recycle 减量、再利用、回收

### Objective

Build the skills to answer exam questions on **waste reduction methods**.

You must be able to:

- apply the **three Rs** (reduce, reuse, recycle) and **composting** 堆肥
- explain the **waste hierarchy** (reduce is best)
- describe benefits of each method

### 1 Worked examples

Study these first. Each one shows the method for a question type used later — follow the steps and you can do the Practice and Exam-style questions yourself.

#### ■ The waste hierarchy

Best to worst: **Reduce** → **Reuse** → **Recycle** → (**Recover energy**) → **Dispose**.  
Preventing waste in the first place (**reduce**) is best.

#### ■ The three Rs

- **Reduce** — use less / buy less packaging.
- **Reuse** — use items again (refillable bottles).
- **Recycle** — process materials into new products (paper, glass, metal, plastic).

#### ■ Composting

**Composting** turns food and yard waste into fertilizer, keeping organic matter out of landfills (where it would make methane) and enriching soil.

#### ■ Benefits

Waste reduction saves **landfill space**, **energy**, and **raw materials**, and cuts pollution and greenhouse gases.

## 2 Practice

Now apply the methods above.

**2.1** State the three Rs in order (best first). [1]

**2.2** What does composting turn waste into? [1]

**2.3** Which R is the most effective? [1]

## 3 Exam-style questions

**3.1** In the waste hierarchy, the best option is to [1]

- **A** dispose
- **B** recycle
- **C** reduce
- **D** incinerate

**3.2** A household wants to cut its waste.

(a) Give one example each of reducing, reusing, and recycling. [3]

(b) Explain one environmental benefit of composting food scraps. [1]

**3.3** Explain why “reduce” is more effective than “recycle”. [2]

## Solutions

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**2.1** Reduce, reuse, recycle.

**2.2** Compost (fertilizer / soil enrichment).

**2.3** Reduce.

**3.1 C** — reduce.

**3.2** (a) Reduce: buy less/less packaging; reuse: refillable bottle; recycle: paper/glass/metal.

(b) It keeps organics out of landfills (avoiding methane) and enriches soil.

**3.3** Reducing prevents the waste (and the energy/materials to make and process it) entirely, while recycling still uses energy to collect and reprocess the material.